Experimental imaging of infectious disease

June 12-13th, 2006
Pooks Hill Marriott Hotel, Bethesda, MD

A workshop co-sponsored by the Biodefense Clinical Research Branch, Division of Clinical Research/NIAID and the Diagnostic Radiology Department, NIH Clinical Center.

Imaging methods such as X-ray CT, MR, PET and SPECT are widely used in research on illnesses such as cancer, and to a lesser extent to study chronic infections such as AIDS, but they have not yet been applied to the acute, severe diseases of concern to biodefense. Similarly, laboratory imaging techniques based on bioluminescence have so far found only limited application in biodefense research. This workshop will therefore bring together infectious disease experts and imaging specialists to examine how imaging could be used to help elucidate the pathogenesis of bioterror-related illnesses and emerging infections, develop novel means of early diagnosis and evaluate new approaches to therapy.

Workshop sessions will focus on:

- review of the physical basis of conventional and molecular imaging techniques and the types of instruments employed
- reports of current research studies that use imaging to examine infectious diseases and related pathologic processes
- review of the pathogenesis of selected diseases of biodefense concern
- discussion of the technical aspects of imaging laboratory animals under biological containment
- design of imaging experiments to elucidate the pathogenesis of bioterror-related diseases and model early diagnosis and patient management.

The planned array of imaging capabilities at the NIAID Integrated Research Facility now under construction at Fort Detrick will also be presented.

For more information, contact

Mike Bray, M.D.
Medical Officer
Biodefense Clinical Research Branch
Division of Clinical Research/NIAID/NIH
Phone 301-451-5123
mbray@niaid.nih.gov